

Patente, Marken u. Erfindungen

From the INTERNATIONAL BUREAU

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01. März 2005

NOTIFICATION OF TRANSMITTAL  
OF COPIES OF TRANSLATION  
OF THE INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT

(PCT Rule 72.2)

To:

BASF AKTIENGESELLSCHAFT  
67056 Ludwigshafen  
ALLEMAGNE

1. AST

2. Ref

EL: Phase beendet 21.12.04

Date of mailing (day/month/year)

24 February 2005 (24.02.2005)

Applicant's or agent's file reference  
0000053693

## IMPORTANT NOTIFICATION

International application No.

PCT/EP2003/006894

International filing date (day/month/year)

30 June 2003 (30.06.2003)

Applicant

BASF AKTIENGESELLSCHAFT et al

## 1. Transmittal of the translation to the applicant.

The International Bureau transmits herewith a copy of the English translation made by the International Bureau of the international preliminary examination report established by the International Preliminary Examining Authority.

## 2. Transmittal of the copy of the translation to the elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following elected Offices requiring such translation:

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## 3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report.

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO  
34, chemin des Colombettes  
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Authorized officer

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From the INTERNATIONAL BUREAU

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Date of mailing ( <i>day/month/year</i> ) 24 February 2005 (24.02.2005)	<b>IMPORTANT NOTIFICATION</b>
Applicant's or agent's file reference 0000053693	
International application No. PCT/EP2003/006894	International filing date ( <i>day/month/year</i> ) 30 June 2003 (30.06.2003)
Applicant BASF AKTIENGESELLSCHAFT et al	

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Translation

PATENT COOPERATION TREATY

PCT/EP2003/006894



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 0000053693	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP2003/006894	International filing date (day/month/year) 30 June 2003 (30.06.2003)	Priority date (day/month/year) 08 July 2002 (08.07.2002)
International Patent Classification (IPC) or national classification and IPC C08K 3/06, C08L 21/00, C08K 9/08		
Applicant BASF AKTIENGESELLSCHAFT		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 2 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 18 December 2003 (18.12.2003)	Date of completion of this report 22 October 2004 (22.10.2004)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP2003/006894

## I. Basis of the report

## 1. With regard to the elements of the international application:\*

- ☐ the international application as originally filed
- ☒ the description:  
pages 1-7, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☒ the claims:  
pages 1-7, as originally filed  
pages \_\_\_\_\_, as amended (together with any statement under Article 19  
pages \_\_\_\_\_, filed with the demand  
pages 8-10, filed with the letter of 22 July 2004 (22.07.2004)
- ☐ the drawings:  
pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the sequence listing part of the description:  
pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

## 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

## 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/fig \_\_\_\_\_

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.  
PCT/EP 03/06894

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. Statement

Novelty (N)	Claims	1-10	YES
	Claims		NO
Inventive step (IS)	Claims	1-10	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-10	YES
	Claims		NO

### 2. Citations and explanations

#### 1. Novelty and inventive step (PCT Article 33(2) and 33(3))

1.1 GB-A-826 161 (D1) discloses a method for producing expanded cellular bodies from rubber. In that method, a lignin complexing agent and sulphur are added to a rubber composition, then vulcanised (examples; claims 1 and 2). The sulphur-containing composition contains 7.5% by weight (example 1) or 2.43% by weight (example 2) sulphur. If only the sulphur and complexing agent components are considered, the vulcanisation mixture (example 1) contains a mixture M equivalent to that as per claim 1 of the application, i.e. 7.5% by weight sulphur and 92.5% by weight lignin complexing agent. The mean particle size of the primary particles of the sulphur or complexing agent components used is not indicated. D1 does not disclose a mixture according to the claimed component a).

GB-A-1 396 757 (D2) describes a method for producing latex foam; 1.5% by weight of a complexing agent, such as sodium salts of ethylene diamine acetic acid or polyphosphate, are added to a vulcanisation paste

which contains 11.8% by weight sulphur, and the mixture is vulcanised (examples; table; claim 1).

That vulcanisation paste in turn contains a mixture M of 82.5% by weight sulphur (20 parts by weight) and 17.5% by weight (4.25 parts by weight) of a complexing agent, Vultamol®. The mean particle size of the primary particles of sulphur or complexing agent, however, is not disclosed. The subject matter of independent claims 1, 7 and 8 is therefore novel over D2.

- 1.2 The closest prior art appears to be the citation DD-A-286 343 (D3). D3 likewise relates to modified sulphur which, besides good pourability, also shows good dispersibility in rubber mixtures at the same time as reduced dust formation when incorporated into vulcanisable rubber mixtures.

The application differs from D3 in that a complexing agent (also a polymer complexing agent) is used to modify the sulphur, instead of polybutadiene. The subject matter of claims 1, 7 and 8 is novel over D3.

The problem addressed is that of devising another method and sulphur-containing composition for vulcanising rubber or latex.

The cited prior art does not indicate that this problem can be solved by adding a mixture of sulphur and a complexing agent.

Consequently, the solution to this problem, as

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proposed in claims 1, 7, and 8 of the present application, involves an inventive step (PCT Article 33(3)).

Claims 2-6 are dependent on claim 1 and claims 9-10 are dependent on claim 8; they therefore likewise meet the PCT novelty and inventive step requirements.

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